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EXAMINER	
TRUVAN, LEYNNA THANH	

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2135	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/690,860	WILLIAMS ET AL.	
	Examiner	Art Unit	
	Leynna T. Truvan	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25 and 34-36* is/are pending in the application.

4a) Of the above claim(s) *26-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 34-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-25 and 34-36 are pending.

Claims 26-33 are cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-25 and 34-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1 and 7 is currently amended with new limitations that was not originally filed. Claim 1 recites new matter "a portion of the frame being modified from a preceding frame in the sequence to generate an altered frame" and claim 7 recites new matter "a portion of the one frame being altered from a preceding frame in the sequence to generate an altered frame". The only closest area of the specification [0009] discloses a portion of the frames of the digital content is altered at least approximately contemporaneous with recording within the graphics processor responsive to tags in a data stream provided thereto, where alteration of the portion of the frames of the digital content is not visually perceptible for real-time display but is

visually perceptible in recorded version thereof. This is not exactly the same meaning as recited in the claims 1 and 7. The claims clearly recites a single frame in the claimed ("a portion of the one frame" and "a portion of the frame"), which is not the same and/or equivalent to more than one or plurality of frames ("a portion of the frames") of the specification. Therefore, claims 1 and 7 recites new limitations neither originally disclosed in the specification nor claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-25 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan, et al. (US 6,374,036) in view of Fukushima (US 6,388,638), and further in view of Gonzales (US 2007/0005795).

As per claim 1:

Ryan discloses a method for protecting digital content, comprising:

providing digital content organized by frames to a rendering unit; **(col.4, lines 26-33)**

altering image content **(col.3, lines 1-21 and col.11, lines 17-23)** within the rendering unit in response to tags in a data stream provided thereto **(col.5, lines 42-67 and col.9, lines 45-67)**, wherein the image content is a portion of the digital content

visible to a viewer **(col.10, lines 15-21 and col.11, lines 3-10)**, and *[the alterations -of the image content are not visually perceptible for real-time display (Fukushima-col.1, lines 42-47)]* but are visually perceptible in a recorded version thereof, **(col.6, lines 45-55 and col.8, lines 18-20 and col.10, lines 1-35)**

the step of altering image content further including detecting one of the tags in the data stream associated with a frame in a sequence of frames, a portion of the frame being modified from a preceding frame in the sequence to generate an altered frame; and **(col.10, lines 40-47and 58-64 and col.11, lines 35-42)**

utilizing the tag to access an *[action table]* to cause the altered frame to be displayed and the sequence of frames to be displayed as unaltered *[only if called for by the action table (Gonzales)]*. **(col.10, lines 48-51 and 63-65)**

Ryan discloses that a hacker could not easily modify a video signal to force a particular attribute value without seriously degrading the entertainment value of the program. Thus, it is obvious that Ryan's intention is to prevent viewing of the video if modifications were made. Such that a watermark is need to allow the user to view the recorded version (col.6, lines 45-50 and col.7, lines 40-42). Thus, it is obvious Ryan discloses the video frames are visually perceptible in a recorded version thereof. However, Ryan fails to discuss the alterations of the digital content are not visually perceptible for real-time display.

Fukushima discloses displaying images that have been recorded and able to change its display contents (col.1, lines 5-8 and 30-35). Fukushima discusses the prior art cannot display image in real time due to heavy calculation load resulting in unnatural

images which intermittently displayed frame by frame. This requires a special purpose processor and circuit, thus would be costly and the apparatus scale increases (col.1, lines 42-47).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan to teach alterations of digital content are visually perceptible in a recorded version with Fukushima to teach the alterations of the digital content are not visually perceptible for real-time display because due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame and requires a special purpose processor and circuit (col.1, lines 42-47).

Additionally, Ryan discloses tags associated to frames that is stored in table for verifying the watermark where the sequence of frames to be displayed as unaltered and tag detection/tag removal (col.10, lines 30-51 and col.11, lines 34-60 and col.12, lines 10-63). However, did not clearly explain an action table and called for by the action table.

Gonzales discloses [paragraph 0388] compressed colour pre-quantisation data is sent with the encoded continuous tone image to enable the video encoder/player 38 to perform real-time colour quantisation 02d by applying the pre-calculated colour quantisation data, thus producing optionally 8-bit indexed colour video representation 02e in real-time. This technique can also be used when reconstruction filtering is used that generates a 24-bit result that is to be displayed on 8-bit devices. This problem can be resolved by sending a small amount of information to the video decoder 38 that describes the mapping from the 24 bit colour result to the 8 bit colour table and all

frames in the video are processed sequentially as indicated by the conditional block at step s1202 [0388]. Gonzales discloses the bitmap compositor 35 supports display scene rasters with different colour resolutions, and manages bitmaps with different bit depths. If the display scene raster 71 has a depth of 8 bits and a colour look up table, the approach taken depends on the number of objects displayed. If only one video object is being displayed, then its colour map is copied directly into the colour map of the display scene raster 71. If multiple video objects exist, then the display scene raster 71 will be set up with a generic colour map, and the pixel value set in the display scene raster 71 will be the closest match to the colour indicated by the index value in the bitmap [0324]. Gonzales discusses the server 24 composes scenes in real-time by multiplexing multiple object data streams based on client requests to construct a single multiplexed packet stream 64 (for any given scene) that is streamed to the client for playback where this architecture allows the media content being played back to change, based on user interaction and it is the server's responsibility to modify the stream appropriately before streaming it to the client [0351]. Gonzales includes tags may also be used to define linking, addressing and also metadata by permitting five basic types of markup tags to provide descriptive and referential information, etc. These are system tags, structural definition tags, presentation formatting, and links and content [0397] wherein object behaviours and action tags encapsulate the object controls [0404-0407]. Further, Gonzales discloses [0355] the operation of the local client performing Dynamic Media Composition (DMC) is described by the flow chart shown in FIG. 16 where the DMC process will browse the user command list and object control data for

any initiated DMC actions and the DMC process checks the location of the target multimedia objects. If the target objects are stored locally, the local server DMC process sends instructions to the local data source manager to read the modified object stream from the local source and the process checks for further initiated DMC actions. Alternatively, the DMC action may require target objects to be sourced both locally and remotely, thus appropriate DMC actions are executed by the local DMC process and DMC instructions are sent to the remote server for processing. It is clear from this discussion that the local server supports hybrid, multi-object video playback, where source data is derived both locally and remotely [0355]. Gonzales discloses the colour map is a table of all of the colours used in the frame where these colours are referenced by their index into the colour map. The bitmap is used to define a number of things including: the colour of pixels in the frame to be rendered on the display, the areas of the frame that are to be made transparent, and the areas of the frame that are to be unchanged where each pixel in each encoded frame may be allocated to one of these functions [0357].

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan and Fukishima with the teachings of Gonzales to teach an action table for the sequence of frames to be displayed as unaltered only if called for by the action table because a table provide appropriate actions/functions to be executed by tags that provide descriptive and referential information to actions where and bitmap is used to for the colour of pixels in the frame to be rendered on the display and the areas of the frame that are to be unchanged where each pixel in each encoded frame may be

allocated to one of these functions [0357].

As per claim 2: see Ryan on col.5, lines 41-45; discloses the method, according to claim 1, wherein the step of altering comprises randomly selecting frames for alteration.

As per claim 3: see Ryan on col.7, lines 10-20; discloses the method, according to claim 1, wherein altering comprises removing at least one object visible to the viewer from a frame.

As per claim 4: see Ryan on col.7, lines 18-20; discloses the method, according to claim 1, wherein altering comprises relocating at least one object visible to the viewer in a frame.

As per claim 5: see Ryan on col.7, lines 18-20; discloses the method, according to claim 1, wherein altering comprises adding at least one object visible to the viewer to a frame.

As per claim 6: see Ryan on col.2, lines 40-41 and col.5, lines 64-67; discloses the method, according to claim 5, wherein the rendering unit is a graphics processing unit.

As per claim 7:

Ryan discloses a device for protecting digital content, comprising:

a rendering unit configured to detect tags in a data stream **(col.5, lines 42-67 and col.9, lines 45-67)** and to associate the detected tags with commands for altering image content **(col.3, lines 1-21 and col.11, lines 17-23),** wherein the image content is a portion of the digital content visible to a viewer **(col.10, lines 58-64 and col.11, lines 3-10)**, and *[the alterations of the image content are not visually perceptible for real-time display]* but are visually perceptible in a recorded version thereof **(col.6, lines 45-55**

and col.8, lines 18-20 and col.10, lines 1-35), the rendering unit include a tag detector for detecting the tags in the data stream, one of the tags associated with one frame in a sequence of frames, a portion of the frame being altered from a preceding frame in the sequence to generate an altered frame; and **(col.10, lines 40-47and 58-64 and col.11, lines 35-42)**

an *[action table]* utilized to cause the altered frame to be displayed or the sequence of frames to be displayed as unaltered *[only if called for by the action table (Gonzales],* **(col.10, lines 48-51 and 63-65)**

Ryan discloses that a hacker could not easily modify a video signal to force a particular attribute value without seriously degrading the entertainment value of the program. Thus, it is obvious that Ryan's intention is to prevent viewing of the video if modifications were made. Such that a watermark is need to allow the user to view the recorded version (col.6, lines 45-50 and col.7, lines 40-42). Thus, it is obvious Ryan discloses the video frames are visually perceptible in a recorded version thereof. However, Ryan fails to discuss the alterations of the digital content are not visually perceptible for real-time display.

Fukushima discloses displaying images that have been recorded and able to change its display contents (col.1, lines 5-8 and 30-35). Fukushima discusses the prior art cannot display image in real time due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame. This requires a special purpose processor and circuit, thus would be costly and the apparatus scale increases (col.1, lines 42-47).

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan to teach alterations of digital content are visually perceptible in a recorded version with Fukushima to teach the alterations of the digital content are not visually perceptible for real-time display because due to heavy calculation load resulting in unnatural images which intermittently displayed frame by frame and requires a special purpose processor and circuit (col.1, lines 42-47).

Additionally, Ryan discloses tags associated to frames that is stored in table for verifying the watermark where the sequence of frames to be displayed as unaltered and tag detection/tag removal (col.10, lines 30-51 and col.11, lines 34-60 and col.12, lines 10-63). However, did not clearly explain an action table and called for by the action table.

Gonzales discloses [paragraph 0388] compressed colour pre-quantisation data is sent with the encoded continuous tone image to enable the video encoder/player 38 to perform real-time colour quantisation 02d by applying the pre-calculated colour quantisation data, thus producing optionally 8-bit indexed colour video representation 02e in real-time. This technique can also be used when reconstruction filtering is used that generates a 24-bit result that is to be displayed on 8-bit devices. This problem can be resolved by sending a small amount of information to the video decoder 38 that describes the mapping from the 24 bit colour result to the 8 bit colour table and all frames in the video are processed sequentially as indicated by the conditional block at step s1202 [0388]. Gonzales discloses the bitmap compositor 35 supports display scene rasters with different colour resolutions, and manages bitmaps with different bit

depths. If the display scene raster 71 has a depth of 8 bits and a colour look up table, the approach taken depends on the number of objects displayed. If only one video object is being displayed, then its colour map is copied directly into the colour map of the display scene raster 71. If multiple video objects exist, then the display scene raster 71 will be set up with a generic colour map, and the pixel value set in the display scene raster 71 will be the closest match to the colour indicated by the index value in the bitmap [0324]. Gonzales discusses the server 24 composes scenes in real-time by multiplexing multiple object data streams based on client requests to construct a single multiplexed packet stream 64 (for any given scene) that is streamed to the client for playback where this architecture allows the media content being played back to change, based on user interaction and it is the server's responsibility to modify the stream appropriately before streaming it to the client [0351]. Gonzales includes tags may also be used to define linking, addressing and also metadata by permitting five basic types of markup tags to provide descriptive and referential information, etc. These are system tags, structural definition tags, presentation formatting, and links and content [0397] wherein object behaviours and action tags encapsulate the object controls [0404-0407]. Further, Gonzales discloses [0355] the operation of the local client performing Dynamic Media Composition (DMC) is described by the flow chart shown in FIG. 16 where the DMC process will browse the user command list and object control data for any initiated DMC actions and the DMC process checks the location of the target multimedia objects. If the target objects are stored locally, the local server DMC process sends instructions to the local data source manager to read the modified object

stream from the local source and the process checks for further initiated DMC actions. Alternatively, the DMC action may require target objects to be sourced both locally and remotely, thus appropriate DMC actions are executed by the local DMC process and DMC instructions are sent to the remote server for processing. It is clear from this discussion that the local server supports hybrid, multi-object video playback, where source data is derived both locally and remotely [0355]. Gonzales discloses the colour map is a table of all of the colours used in the frame where these colours are referenced by their index into the colour map. The bitmap is used to define a number of things including: the colour of pixels in the frame to be rendered on the display, the areas of the frame that are to be made transparent, and the areas of the frame that are to be unchanged where each pixel in each encoded frame may be allocated to one of these functions [0357].

Therefore, it would have been obvious for a person of ordinary skills in the art to combine Ryan and Fukishima with the teachings of Gonzales to teach an action table for the sequence of frames to be displayed as unaltered only if called for by the action table because a table provide appropriate actions/functions to be executed by tags that provide descriptive and referential information to actions where and bitmap is used to for the colour of pixels in the frame to be rendered on the display and the areas of the frame that are to be unchanged where each pixel in each encoded frame may be allocated to one of these functions [0324, 0355, 0357].

As per claim 8: see Ryan on col.6, lines 28-38; discloses the device, according to claim 7, wherein the rendering unit includes a table for storing symbols used when

associating the detected tags with the commands.

As per claim 9: see Ryan on col.6, lines 39-42; discloses the device, according to claim 8, wherein the rendering unit comprises memory for storing overlays for alteration of the image content.

As per claim 10: see Ryan on col.5, lines 42-45; discloses the device, according to claim 8, wherein the rendering unit comprises a random number generator for randomly selecting when to apply the commands.

As per claim 11: see Ryan on col.5, lines 15-25; discloses the device, according to claim 10, wherein the random number generator randomly selects when to apply overlays.

As per claim 12: see Ryan on col.6, lines 48-50; discloses the device, according to claim 10, wherein the rendering unit comprises a decryptor.

As per claim 13: see Ryan on col.3, lines 43-45; discloses the device, according to claim 10, wherein the rendering unit is configured to detect watermarks and to alter image frames in response to detected watermarks.

As per claim 14: see Gonzales on paragraphs 0426-0427; discloses the device, according to claim 10, wherein the rendering unit detects watermarks and provides a graphical user interface in response to at least one detected watermark.

As per claim 15: see Ryan on col.3, lines 23-30 and Gonzales on paragraphs 0426-0427; discloses the graphical user interface is provide after detecting a threshold number of watermarks.

As per claim 16: see Ryan on col.3, lines 23-30 and Gonzales on paragraphs 0426-

0427; discloses the device, according to claim 15, wherein the graphical user interface provides a data entry block for entry of a key.

As per claim 17: see Ryan on col.6, lines 25-29; discloses the device, according to claim 16, wherein the rendering unit is configured to down sample in response to a failure to enter an acceptable key.

As per claim 18: see Ryan on col.4, lines 62-64; discloses the device, according to claim 16, wherein the rendering unit is configured to disable recording in response to a failure to enter an acceptable key.

As per claim 19: see Ryan on col.3, lines 15-18; discloses the device, according to claim 16, wherein the rendering unit is configured to randomly alter the selected frames in response to a failure to enter an acceptable key.

As per claim 20: see Ryan on col.3, lines 24-26; discloses the device, according to claim 10, wherein the device is a digital video camera.

As per claim 21: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a digital video disc recorder.

As per claim 22: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a compact disc recorder.

As per claim 23: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the recording device, according to claim 10, wherein the device is a hard disk drive recorder.

As per claim 24: see Ryan on col.3, lines 24-26 and col.7, lines 49-50; discloses the device, according to claim 10, wherein the device is a digital tape drive recorder.

As per claim 25: see Ryan on col.3, lines 24-26 and col.7, lines 49-50; discloses the device, according to claim 10, wherein the device is a floppy disk drive recorder.

As per claim 26: see Ryan on col.3, lines 24-26 and col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a solid state memory recorder.

As per claim 27: see Ryan on col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a computer.

As per claim 28: see Ryan on col.4, lines 1-4; discloses the device, according to claim 10, wherein the device is a monitor.

As per claim 29: see Ryan on col.3, line 67 – col.4, line 4; discloses the device, according to claim 10, wherein the device is a television.

As per claim 34: see Gonzales on paragraphs 0324, 0355, 0357; discloses the rendering unit causes display of the altered frame upon detection of the tag unless a proper response is entered.

As per claim 35: see Gonzales on paragraphs 0324, 0355, 0357; discloses the step of applying the tag to a randomizer to randomly apply or ignore the tag or send the tag to the action table.

As per claim 36: see Gonzales on paragraphs 0426-0427; discloses the step of in response to the detection of the tag, invoking the graphical user interface (GUI) to allow a user to enter a key to prevent the action table from being accessed so that the unaltered frames are not displayed.

Response to Arguments

4. Applicant's arguments with respect to claims 1-25 and 34-36 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-25 and 34-36 are now rejected in view of Ryan, Fukishima, and Gonzales combination. Gonzales is combined with Ryan to teach an action table to call frames to be displayed.

Examiner traverses the argument regarding the last paragraph on pg.6 to pg.7, that Ryan does not recite detecting tags in the stream of data that identify singular unaltered frames in a sequence of frames. The only closest area of the specification [0009] discloses a portion of the frames of the digital content is altered at least approximately contemporaneous with recording within the graphics processor responsive to tags in a data stream provided thereto, where alteration of the portion of the frames of the digital content is not visually perceptible for real-time display but is visually perceptible in recorded version thereof. This is not exactly the same meaning as recited in the claims 1 and 7. The claims clearly recites a single frame in the claimed ("a portion of the one frame" and "a portion of the frame"), which is not the same and/or equivalent to more than one or plurality of frames ("a portion of the frames") of the specification. Therefore, claims 1 and 7 recites new limitations neither originally disclosed in the specification nor claimed. In addition, an unaltered frame can broadly be interpreted as a frame that have not been changed nor modified during transmission or after being verified by authorized person/entity/data. Ryan discloses tags associated to frames that is stored in table for verifying the watermark where the sequence of

frames to be displayed as unaltered and tag detection/tag removal (col.10, lines 30-51 and col.11, lines 34-60 and col.12, lines 10-63).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leynna T. Truvan whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. T. T./
Examiner, Art Unit 2135
/KimYen Vu/
Supervisory Patent Examiner, Art Unit 2135